



# Biliary system

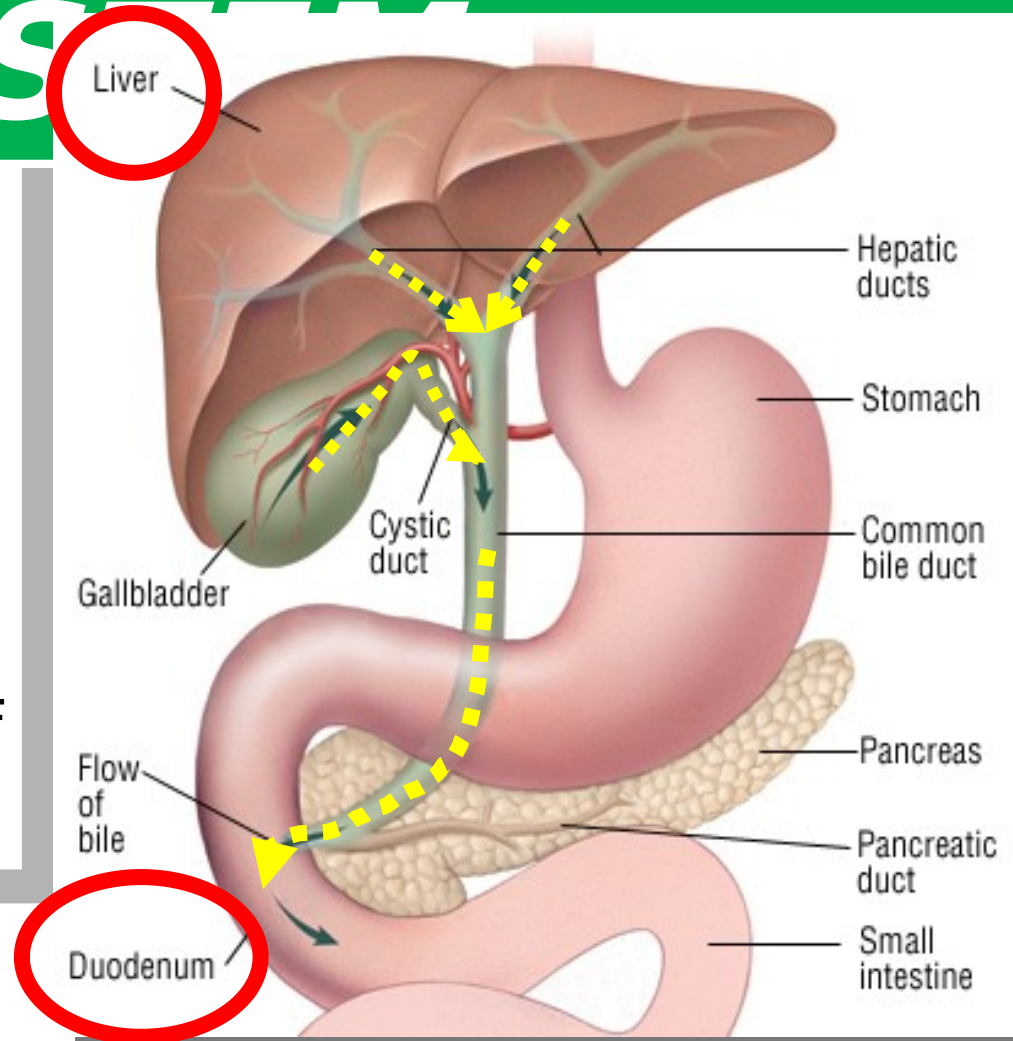
# INTENDED LEARNING OBJECTIVES (ILO)



- Describe parts of gall bladder,
- Describe surface anatomy of its fundus
- Enumerate its blood supply.
- Comment on referred pain from gall bladder disease.
- Describe the extra-hepatic biliary passages

# ***THE BILIARY SYSTEM***

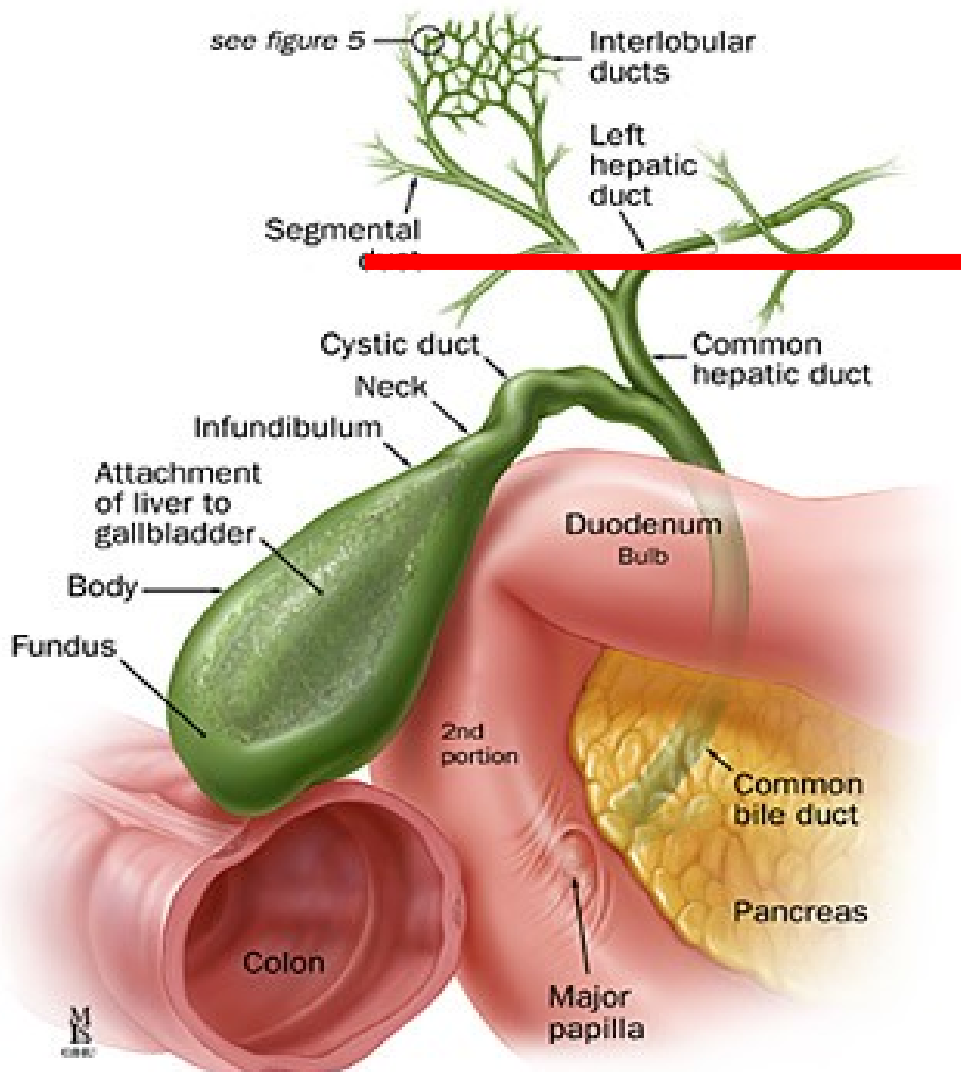
The biliary tree consists of the system of ducts which collect and deliver bile from the liver parenchyma to the second part of the duodenum



# ***THE BILIARY***

## **1-Intrahepatic biliary tree**

## **2-Extrahepatic biliary tree**

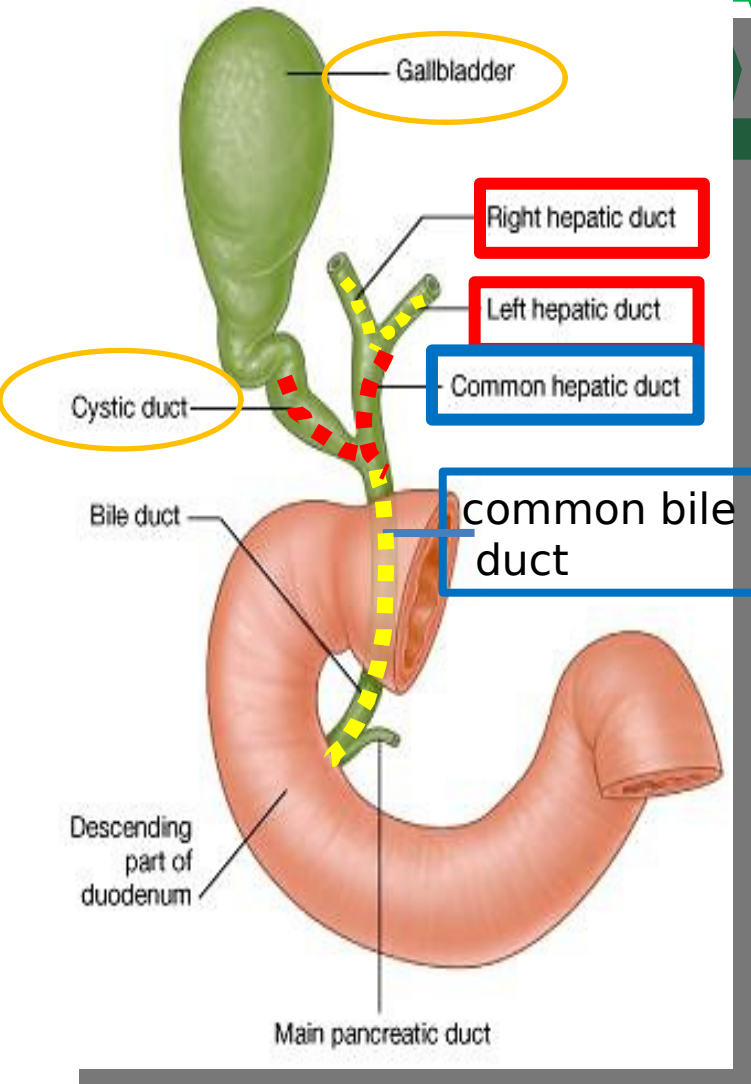


# THE BILIARY

## SYSTEM

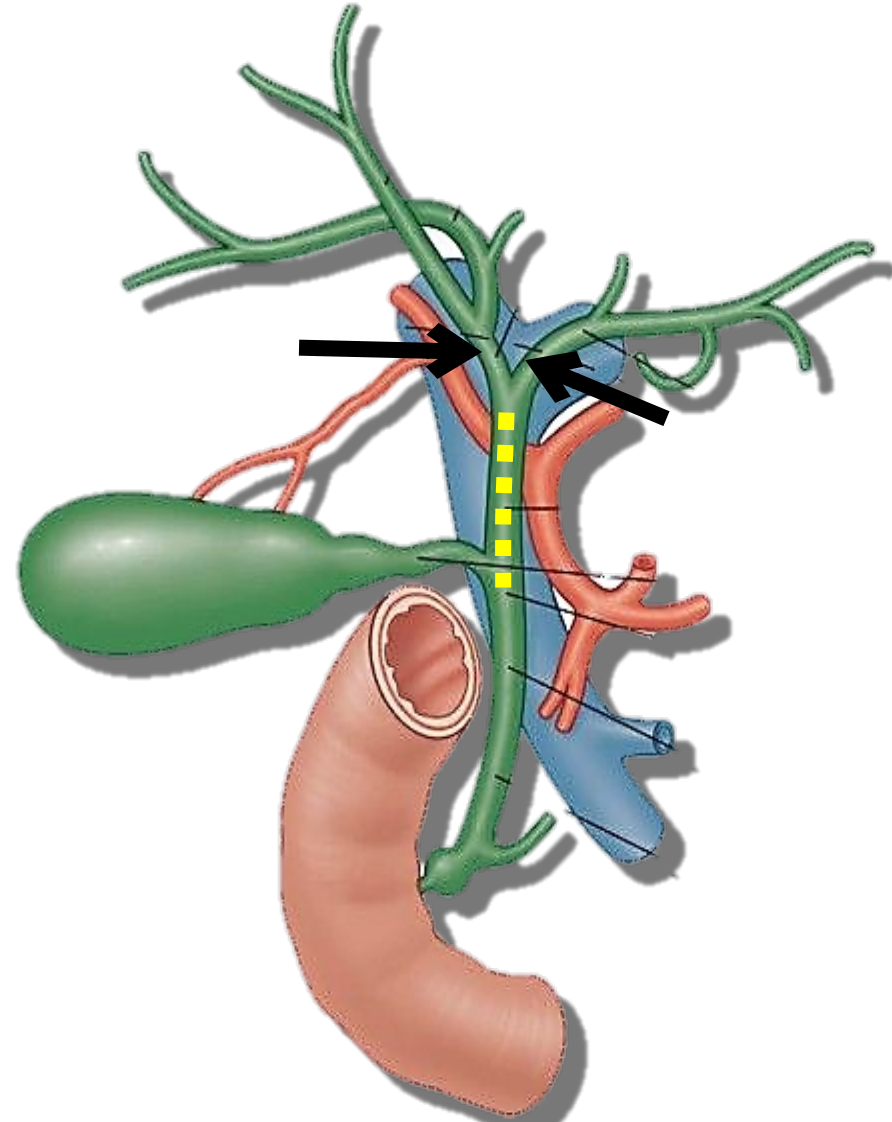
### Extrahepatic biliary tree

- ❑ right and left hepatic ducts,
- ❑ the common hepatic duct
- ❑ Gall bladder and cystic duct
- ❑ the common bile duct



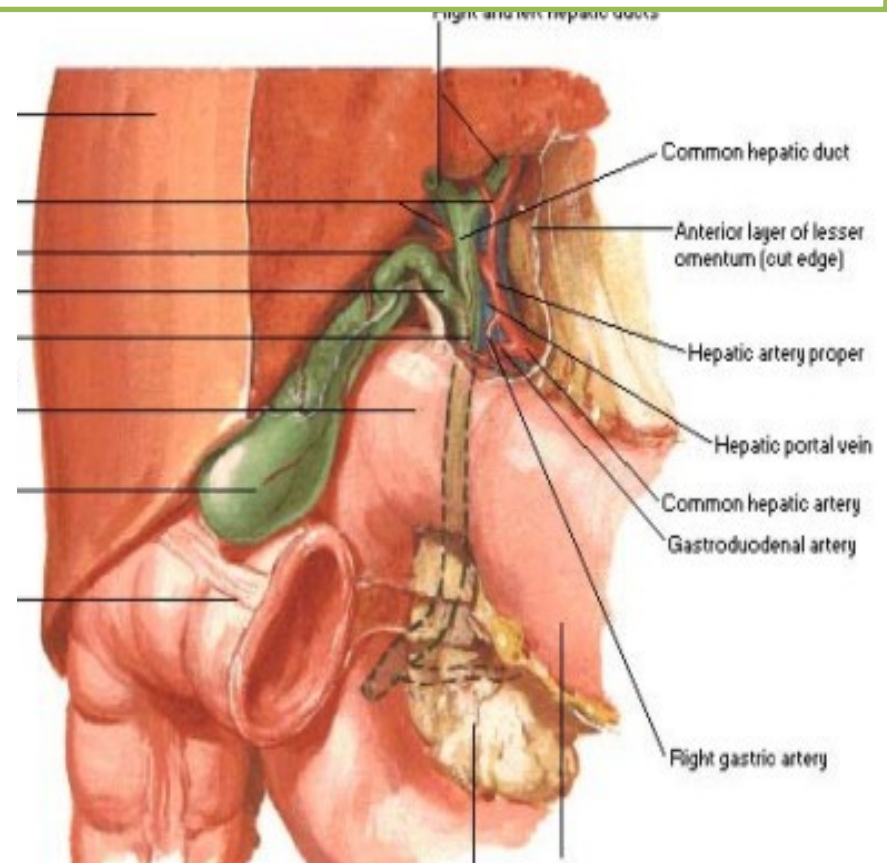
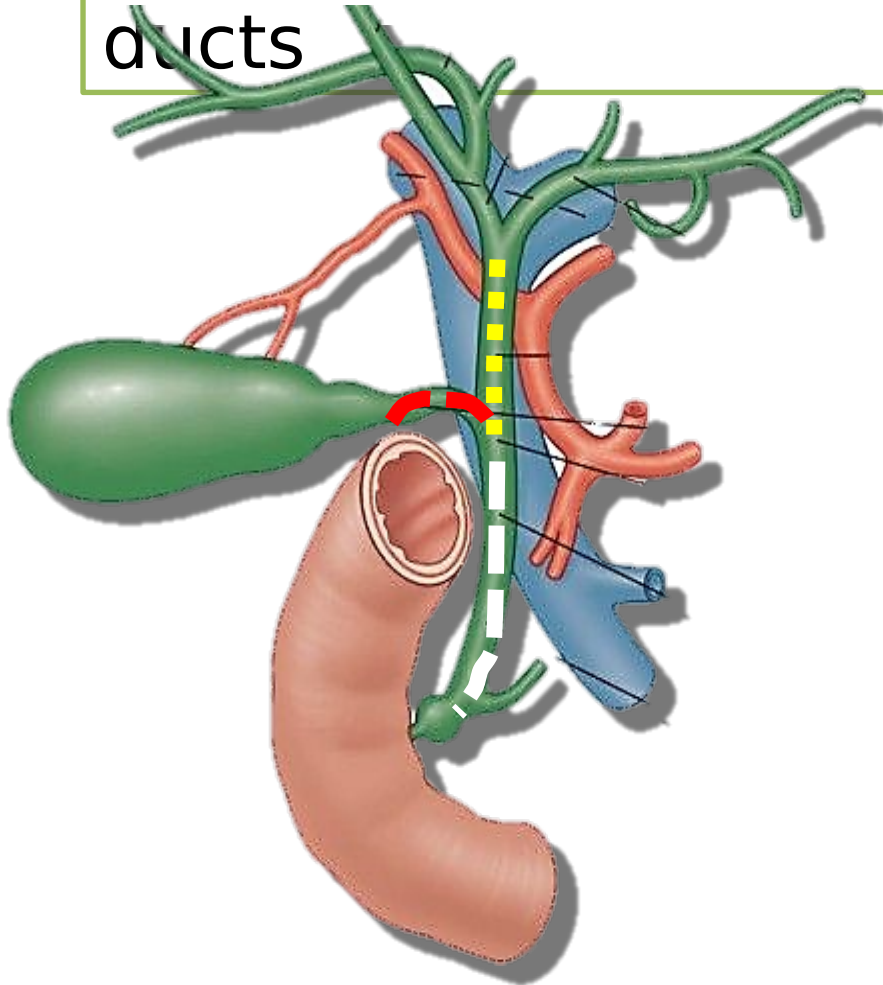
# Common Hepatic Duct

It is formed by The union of right and left hepatic ducts near the porta hepatis.



# ***Common Bile duct***

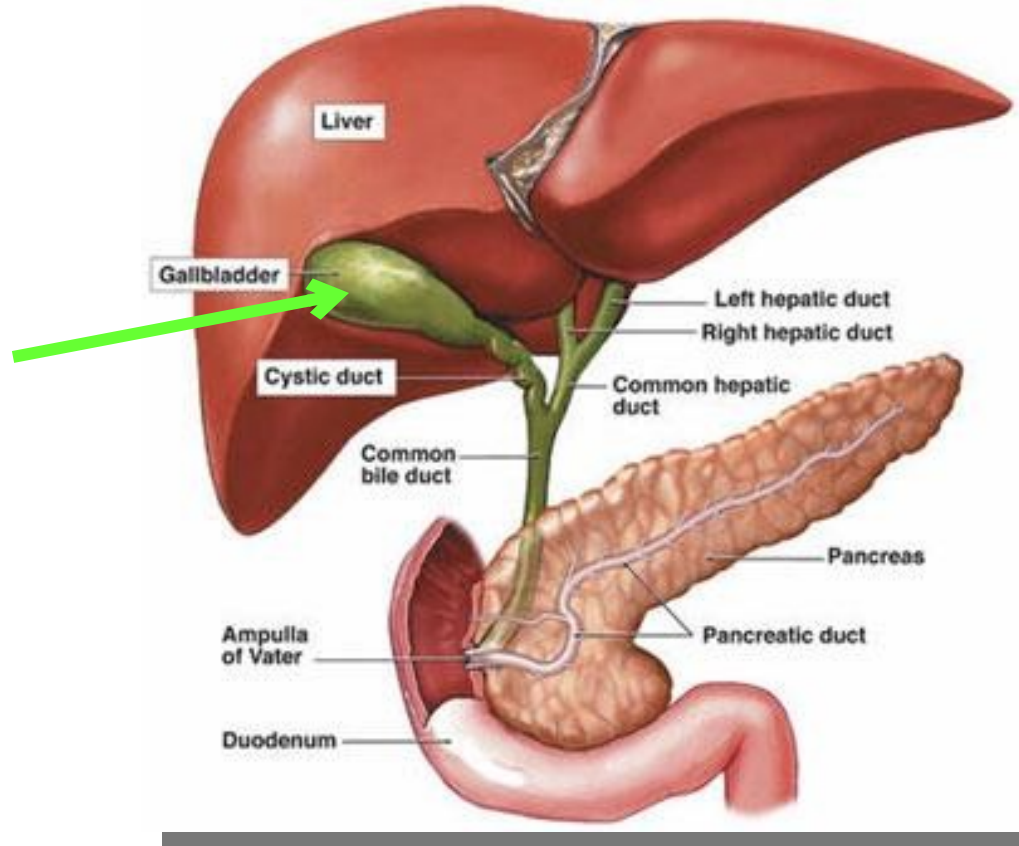
It is formed near the porta hepatis by the junction of the cystic and common hepatic ducts





# ***Gall bladder***

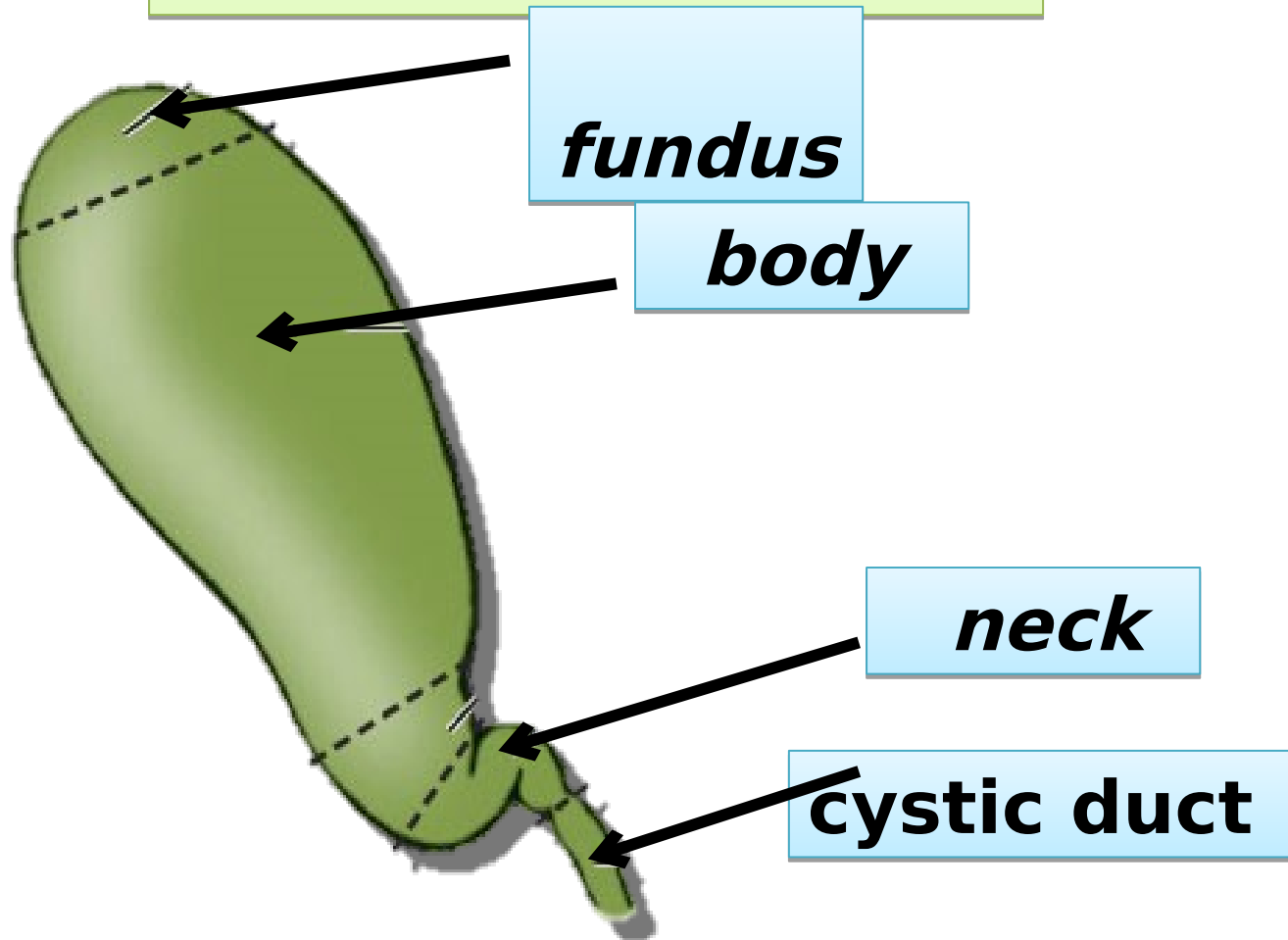
Site: partly in a fossa on the inferior surface of liver.





# ***Gall bladder***

## ***Parts of the gall bladder***



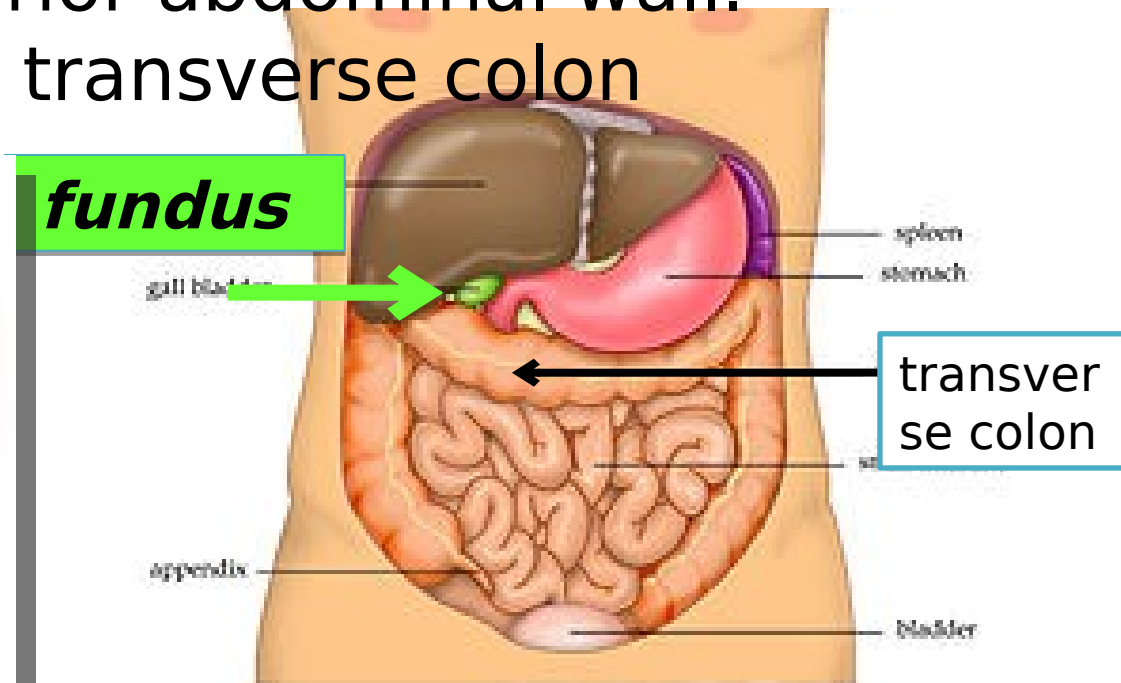
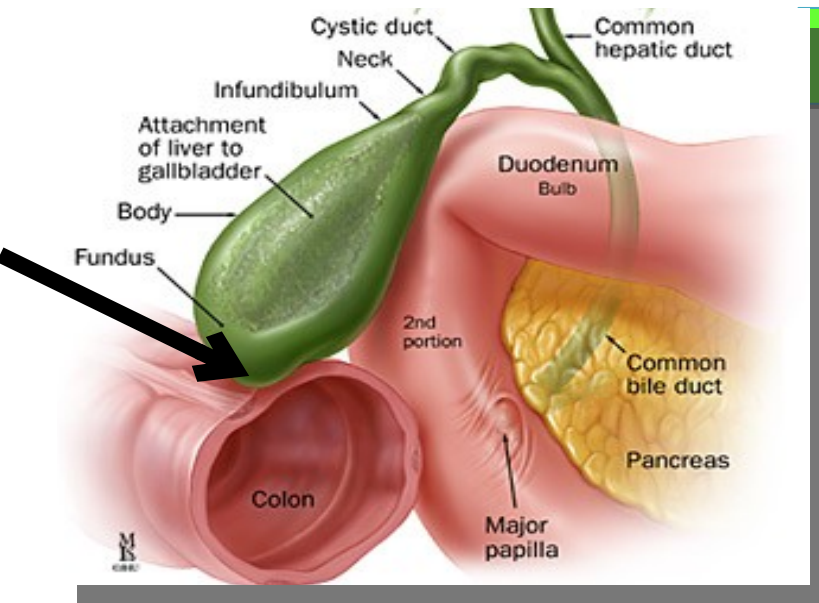
# ***Gall bladder***

## ***The fundus :***

- o It is the expanded end projects downward
- o it extends beyond the inferior border of the liver

**Anteriorly:** to anterior abdominal wall.

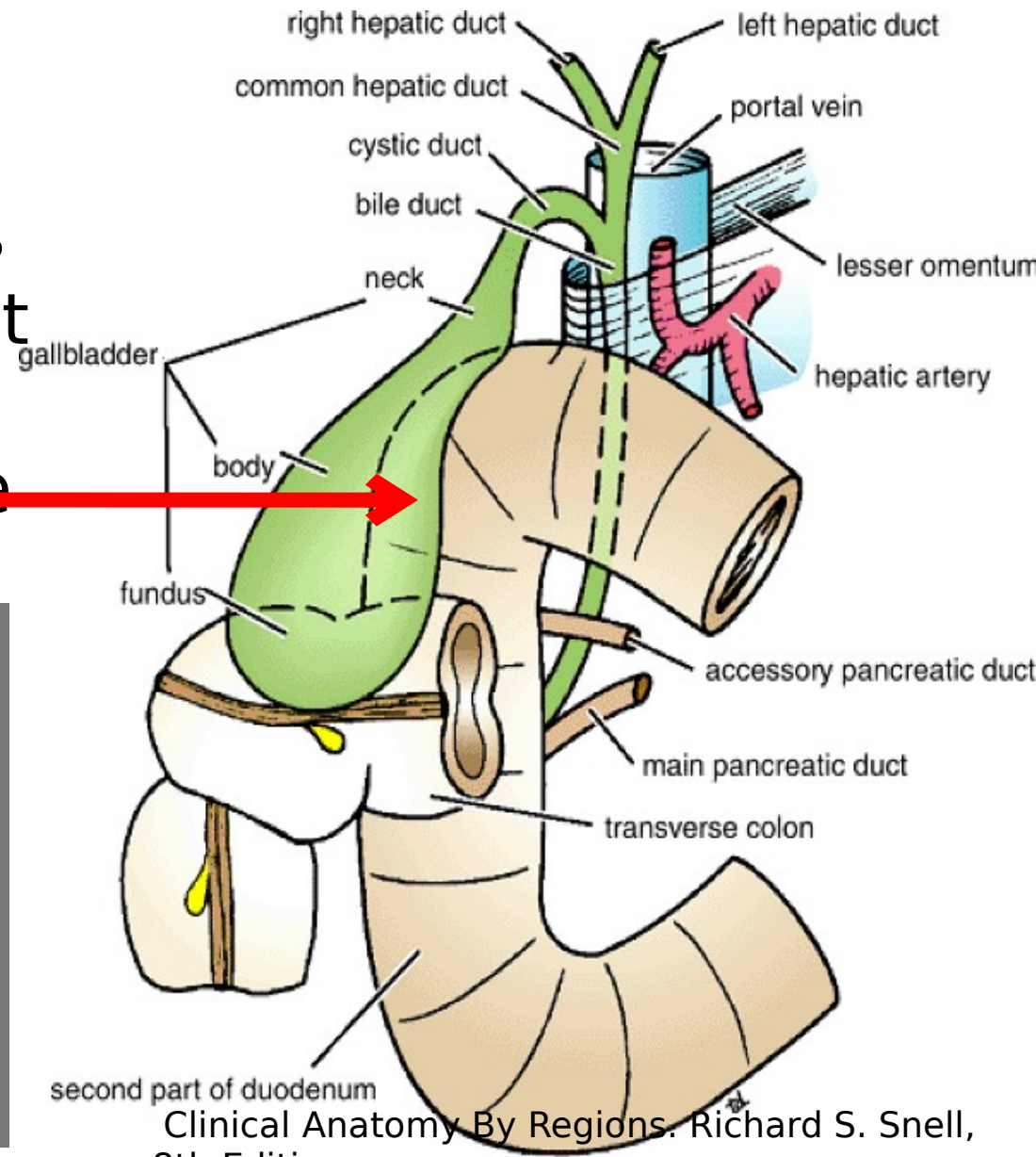
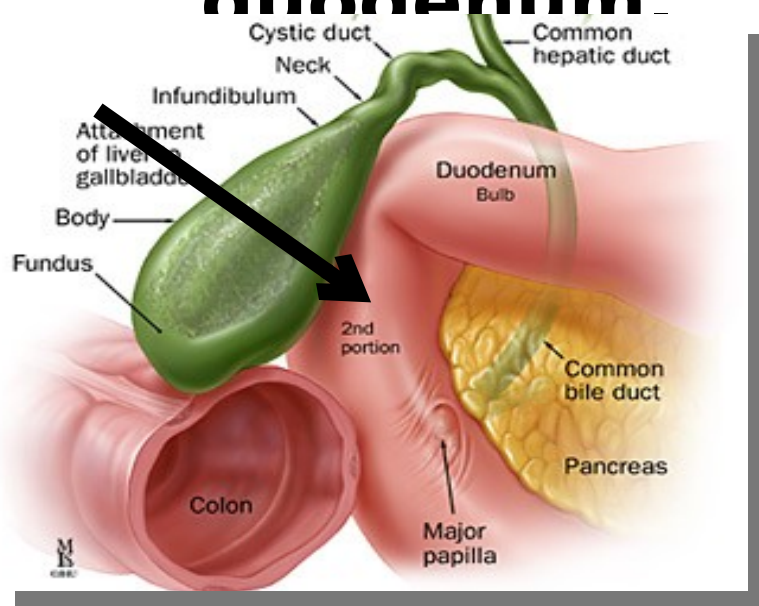
**Posteriorly:** to the transverse colon



# ***Gall bladder***

## ***The body of gall bladder:***

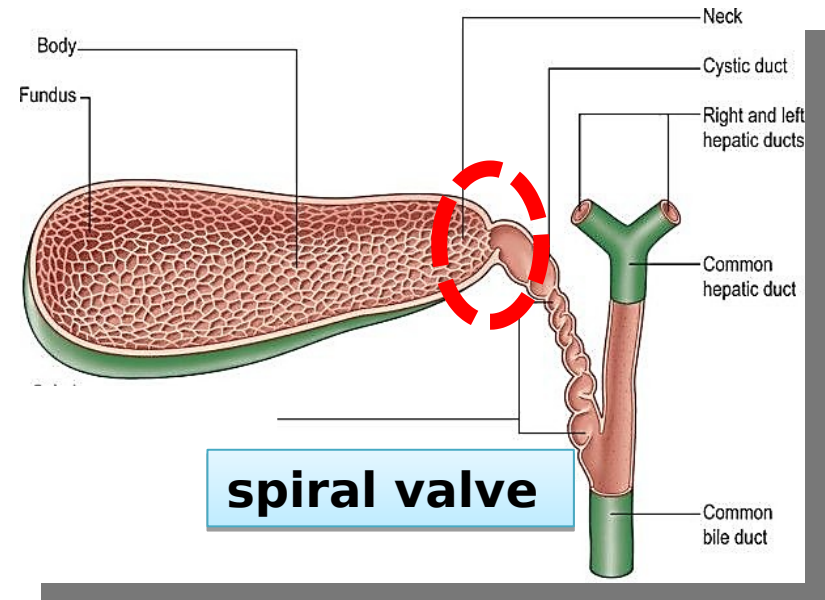
- o is directed upwards
- o Anteriorly in contact with the liver
- o Posteriorly: with the **duodenum**



# ***Gall bladder***

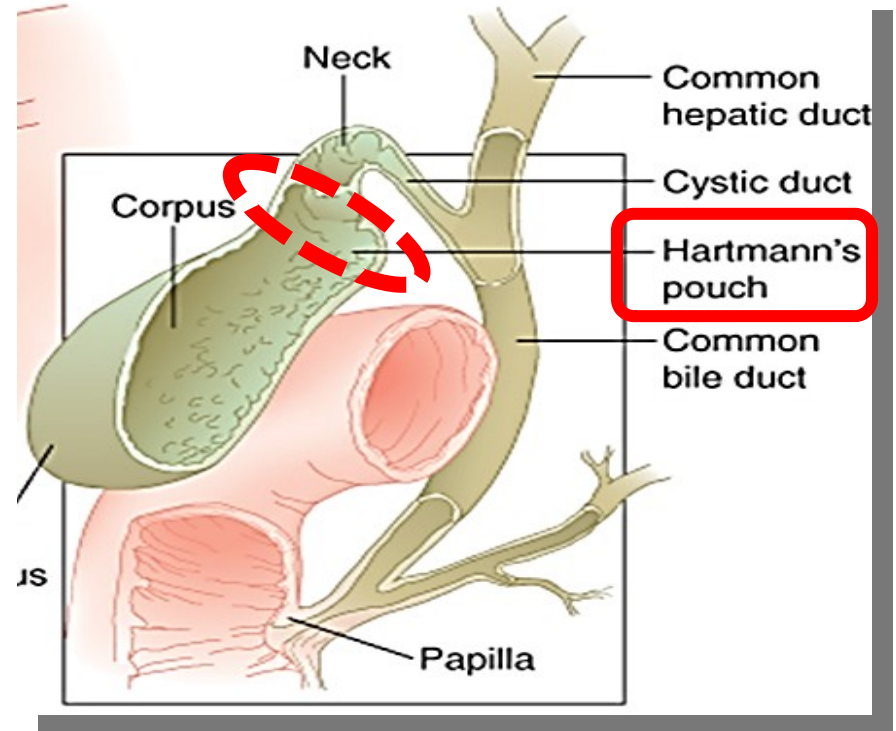
## ***The neck of gall bladder :***

is the narrow part which follows the body. continuous with the **spiral valve** of the cystic duct .



# ***Gall bladder***

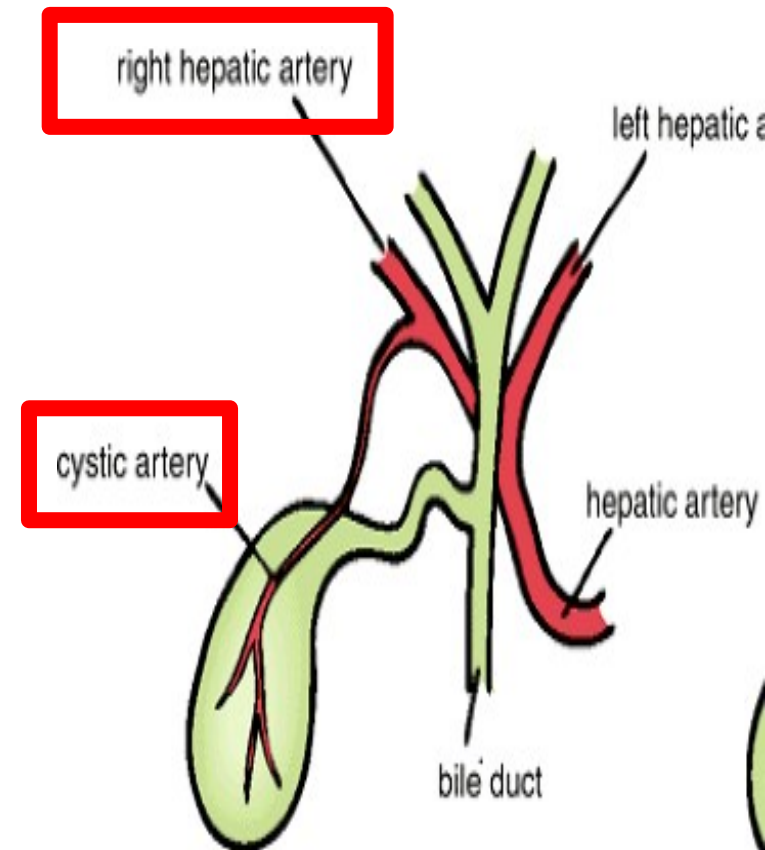
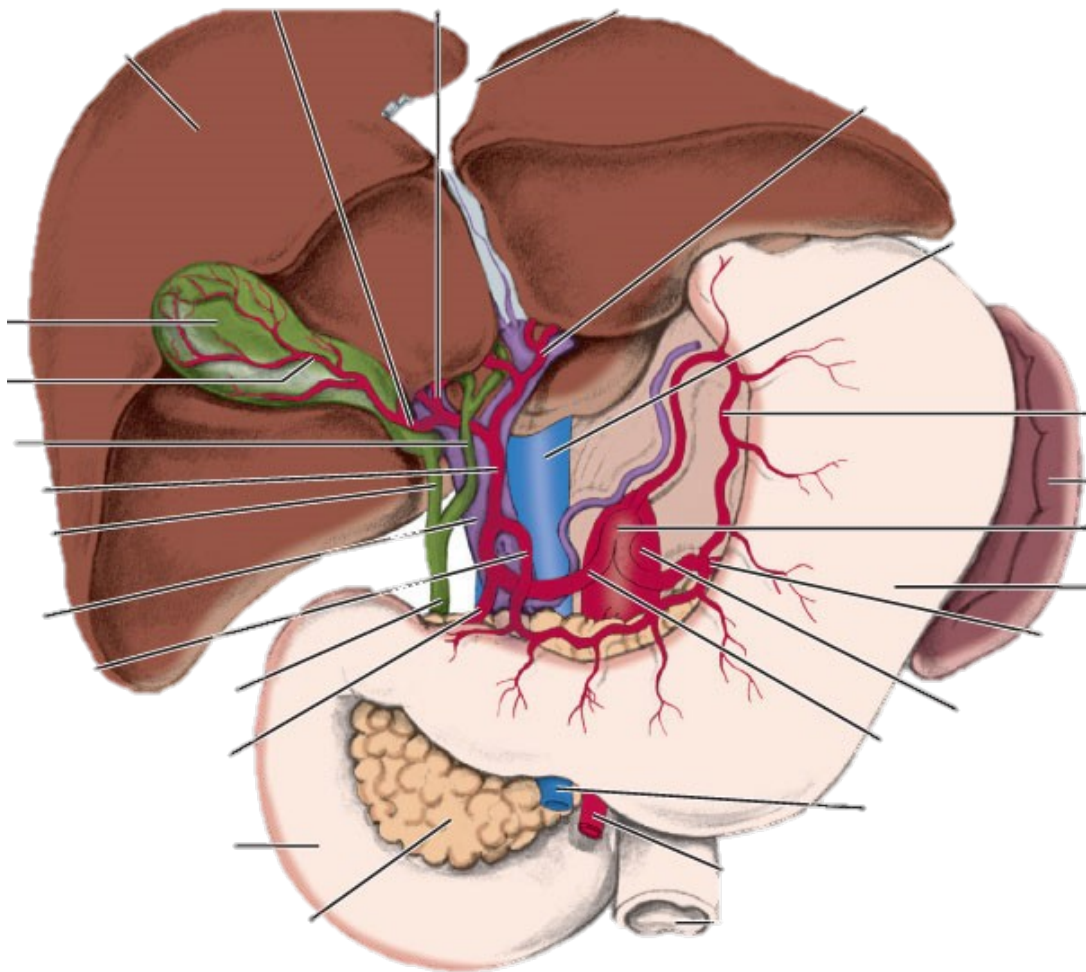
**lateral end the neck** widens out. in clinical practice, this widening is often referred as '**Hartmann's pouch**'.



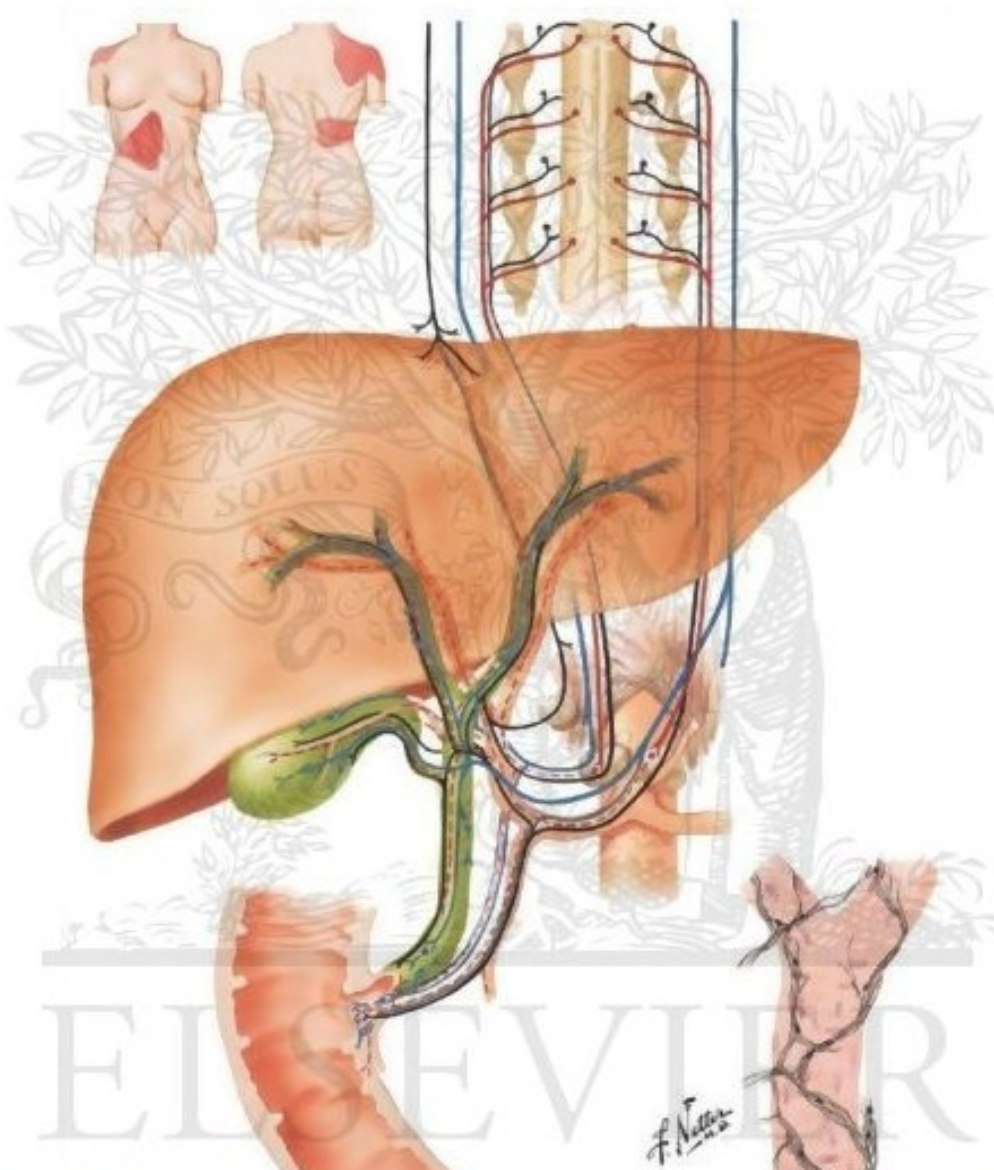


# ***Blood supply of the gall bladder***

***cystic artery***



# Nerve supply of the gall bladder



## **3 types of innervation**

which course with the cystic artery.

**The celiac plexus**  
supplies  
**sympathetic innervation**

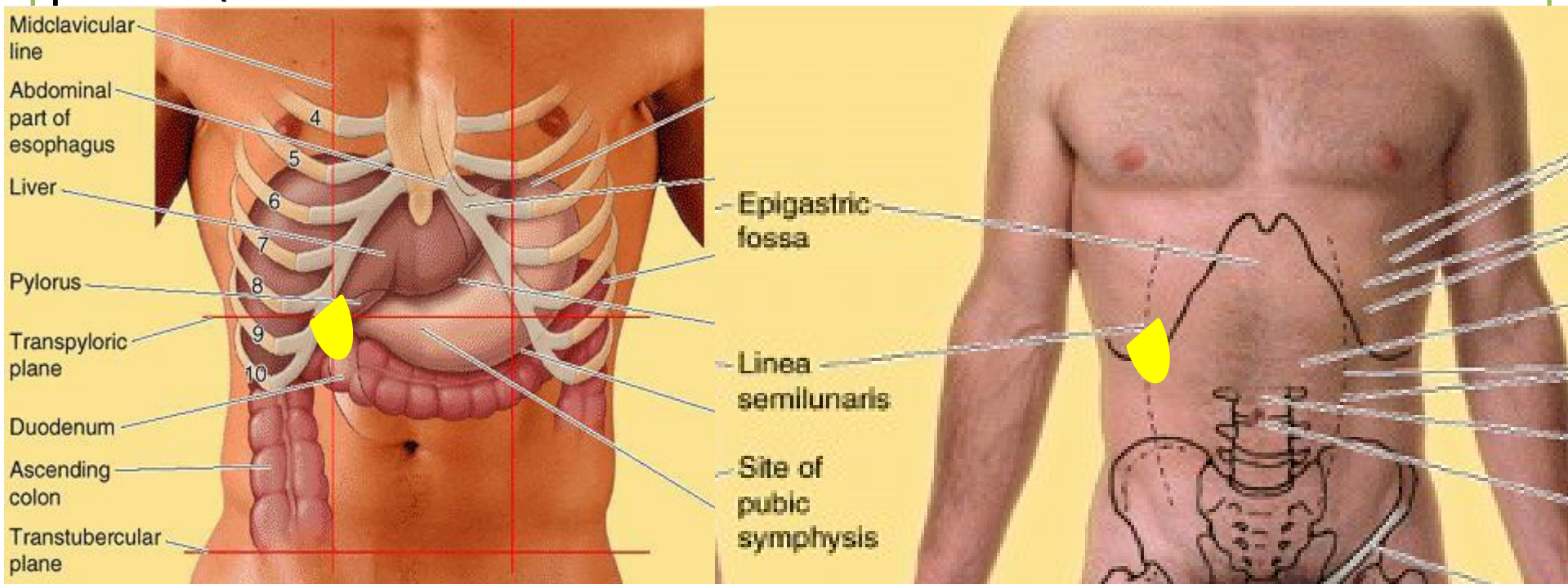
**the vagus nerve**  
supplies  
**parasympathetic**



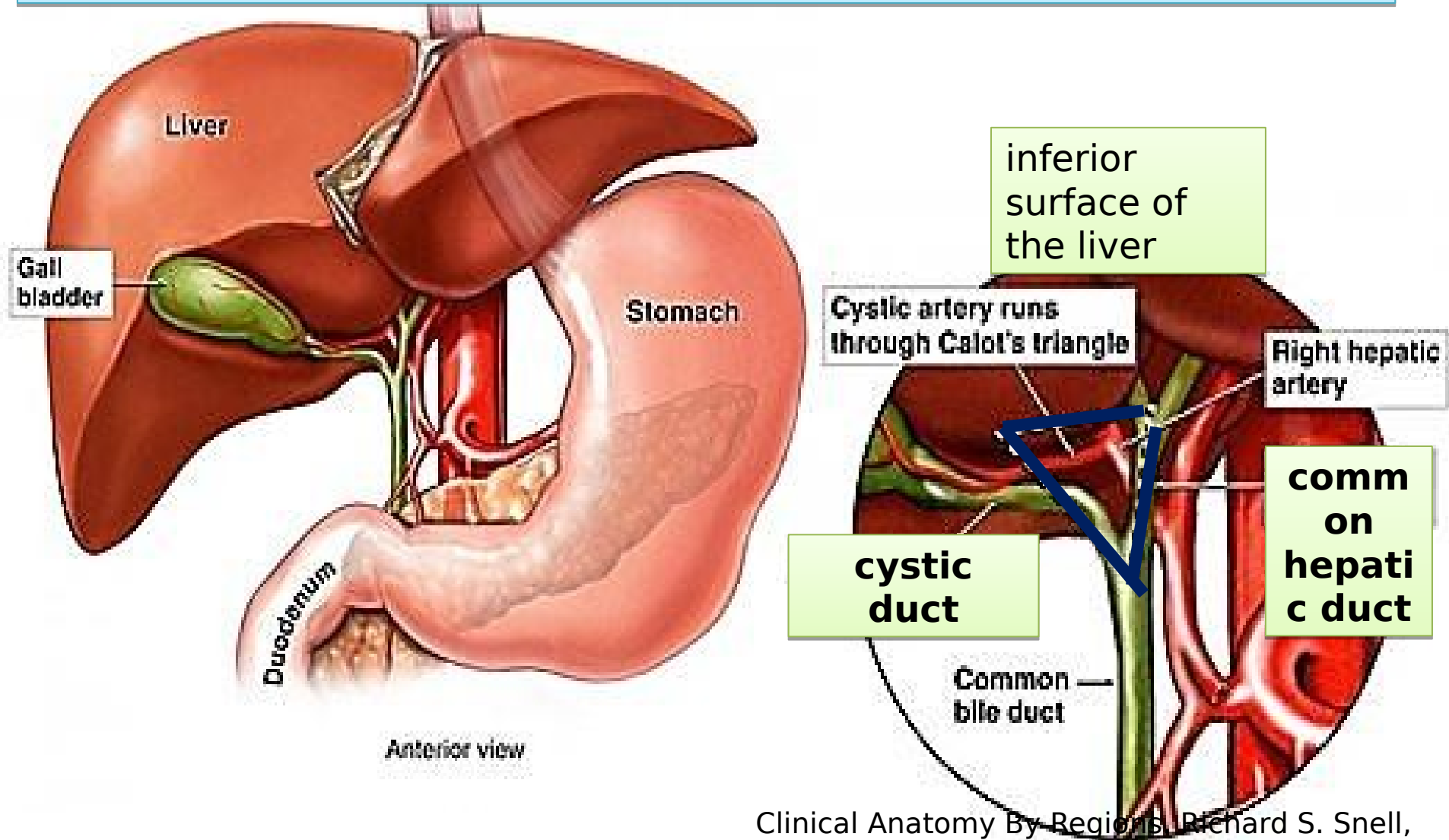
# Surface anatomy of the gall bladder

**“tip of the Rt. 9th costal cartilage”**

where the lateral edge of right rectus abdominis (linea semilunaris) crosses the costal margin in transpyloric plane (L1

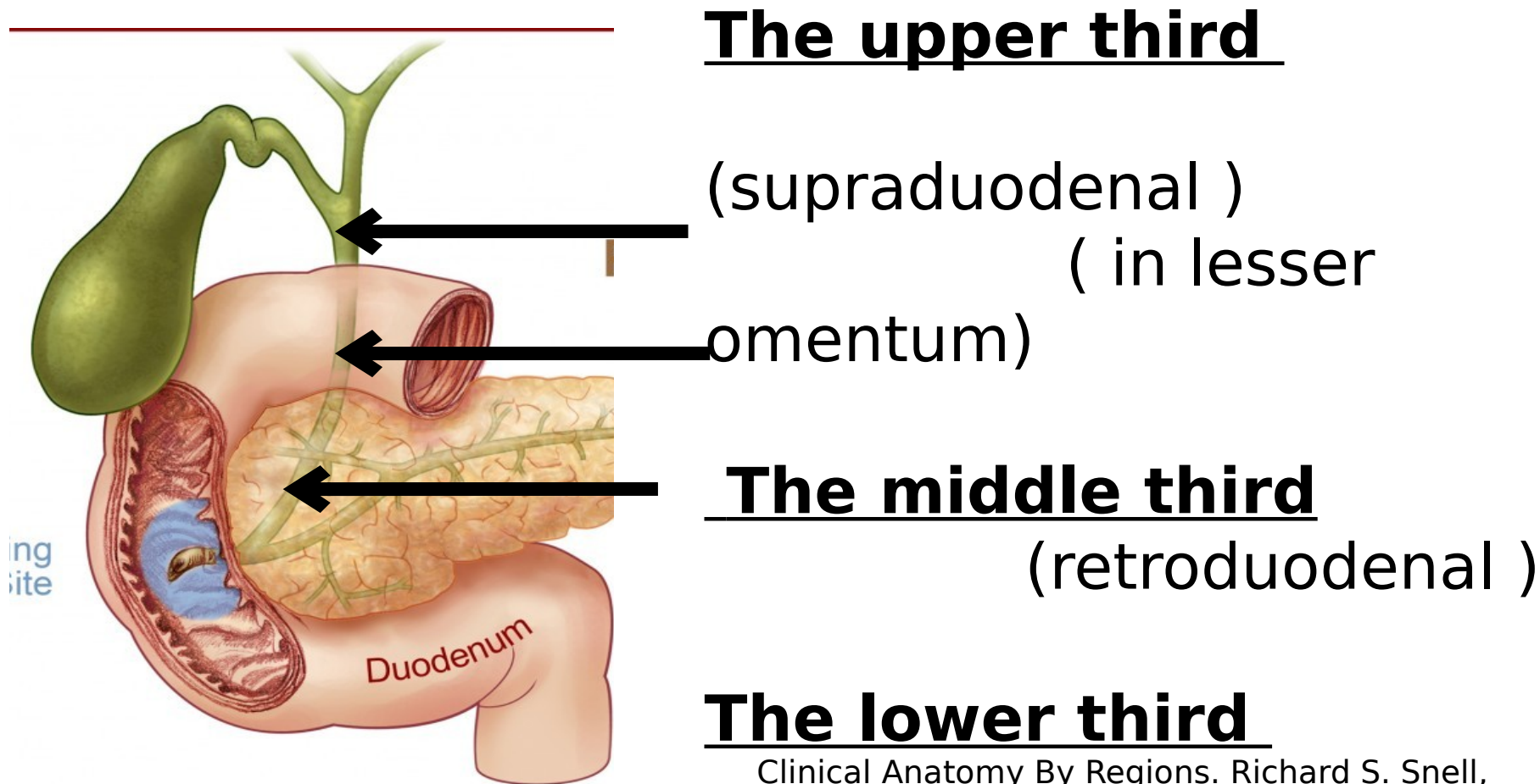


# Cystohepatic triangle (Calot triangle)



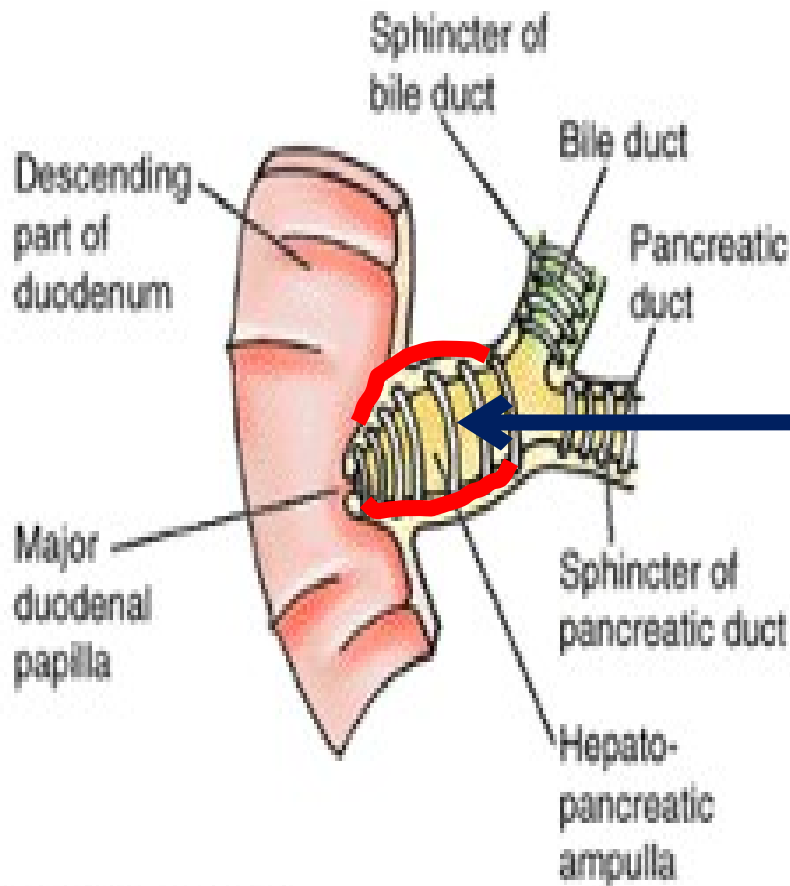
# ***Common Bile Duct***

It is formed near the porta hepatis by the junction of the cystic and common hepatic ducts



# Bile duct

It opens into the **2<sup>nd</sup> part of the duodenum**. It unites with the **main pancreatic duct** to form the **hepatopancreatic ampulla**

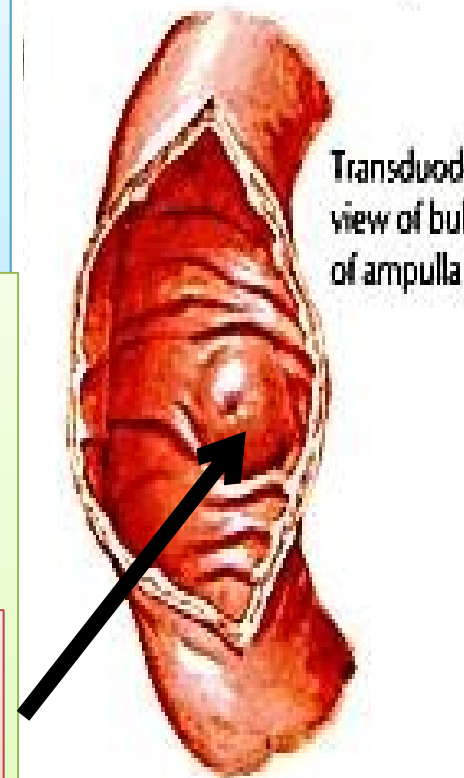


*the  
hepatopancreat  
ic ampulla  
ampulla of*

*Sphincter of  
Oddi*

Circular muscle  
surrounds

**Major  
duodenal  
papilla**



**GOOD LUCK**